Cardiac Arrest: Post-Resuscitation Care

History

- Respiratory arrest
- Cardiac arrest

Signs/Symptoms

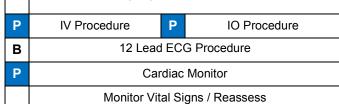
Return of pulse

Differential

 Continue to address specific differentials associated with the original dysrhythmia

Repeat Primary Assessment Optimize Ventilation and Oxygenation

- Maintain SpO2 ≥ 93%
- Maintain i-gel/ETT airway, if indicated
- Resp Rate 6 12 per min (EtCO2 35-45)
- DO NOT HYPERVENTILATE



Normal Saline Bolus 500 mL IV / IO
May repeat as needed if lungs clear
Maximum 2 L

В

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Dopamine 10-20 mcg/kg/min IV/IO

Titrate pressor to SBP ≥ 90

←YES → Hypotension Systolic BP < 90

NO NO

STEMI on 12 Lead ECG

NO

Notify STEMI Receiving Center of 12 Lead EKG Finding

Cardiac: Bradycardia Protocol -YES-Symptomatic Bradycardia

NO

ROSC with

Antiarrhythmic given

NO

Arrhythmias are common and usually self limiting after ROSC. They may not need further meds or drips.

If Arrhythmia persists, follow Rhythm Appropriate Protocol

Consider Sedation if needed
Use only with i-gel or ETT in place

Midazolam 2.5-5 mg IV/IO

May repeat x 1 in 5 minutes if needed (Hold for BP < 100 mmHg)

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Contact Medical Control for questions or additional guidance



Cardiac Arrest: Post-Resuscitation Care

Post ROSC Cardiac Arrest Checklist

FINGER on pulse; maintain for 5 minutes. DO NOT MOVE the patient during this time!
ASSESS CO2 (should be >20 with good waveform)
Continuous visualization of cardiac monitor rhythm
Check O2 supply and Pulse Ox, Maintain SpO2 ≥ 93%
Do not try to obtain a "normal" EtCO2 by increasing respiratory rate
Obtain 12 lead EKG; if STEMI evident, make STEMI notification to the hospital
Assess for & TREAT bradycardias, HR < 60 bpm
Obtain Blood Pressure Pressor agent indicated for SBP < 90
Evaluate for post-resuscitation airway placement (e.g. i-gel or ETT), if needed.
When patient is moved, perform CONTINUOUS PULSE CHECK and continuous monitoring
of cardiac rhythm
Have Mask available for BVM in case i-gel or ETT fails
Once in ambulance, confirm pulse, breath sounds, SaO2, EtCO2, and cardiac rhythm
Appropriate personnel present in the back of the ambulance for transport

Pearls

- Continue to search for potential cause of cardiac arrest during post-resuscitation care.
- Hyperventilation is a significant cause of hypotension and recurrence of cardiac arrest in the post resuscitation phase and should be avoided at all costs.
- Initial End tidal CO2 may be elevated immediately post-resuscitation but will <u>usually</u> normalize. While goal is 35 45 mm Hg, avoid hyperventilation.
- Most patients immediately post resuscitation will require ventilatory assistance.
- The condition of post-resuscitation patients fluctuates rapidly and continuously, they require close monitoring. Appropriate post-resuscitation management may require consultation with medical control.
- Common causes of post-resuscitation hypotension include hyperventilation, hypovolemia, pneumothorax, and medication reaction to ALS drugs.
- Titrate Dopamine to maintain SBP ≥ 90. Ensure adequate fluid resuscitation is ongoing.
- Patients with a STEMI or suspicion of a STEMI must be routed to a STEMI Receiving Center!